

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method for smelting sulfidic copper concentrates, in which method copper sulfide bearing material is smelted in a smelting furnace (1) for creating blister copper and slag, ~~characterized in that~~ wherein at least part (3) of the feed of the smelting furnace (1) is copper sulfide (3) bearing material obtained by means of sulfide bearing material (2) that is fed to the hydrometallurgic further processing (12, 19) of slag (11) created in the smelting process.

2. (Currently Amended) A method according to claim 1, ~~characterized in that~~ wherein the slag (11) created in the smelting process is treated in an at least two-step hydrometallurgic (12, 19) further processing treatment.

3. (Currently Amended) A method according to claim ~~[[1 or]]~~ 2, ~~characterized in that~~ wherein the slag (11) is leached (12) for turning ~~[[the]]~~ copper contained in the slag into soluble form, and ~~[[the]]~~ a copper bearing solution (16) is conducted to a conversion step (19) for turning the soluble copper into copper sulfide (3) form by sulfide bearing material.

4. (Currently Amended) A method according to claim ~~[[1, 2 or]]~~ 3, ~~characterized in that~~ wherein the slag (11) obtained from smelting is silicate bearing.

5. (Currently Amended) A method according to claim ~~[[1, 2 or]]~~ 3, ~~characterized in that~~ wherein the slag (11) obtained from smelting is ferrite bearing.

6. (Currently Amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 5, wherein the leaching (12) of the slag is carried out as atmospheric leaching.

7. (Currently Amended) A method according to claim 6, ~~characterized in that~~ wherein the leaching (12) of the slag is carried out at the temperature of 50-105°C.

8. (Currently Amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 5, wherein the leaching (12) of the slag is carried out in an autoclave.

9. (Currently Amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 5, wherein the conversion (19) of the copper, leached from the slag, into sulfide is carried out at the temperature of 90-200°C.

10. (Currently Amended) A method according to claim 9, ~~characterized in that~~ wherein the conversion (19) of the copper, leached from the slag, into sulfide is carried out at the temperature of 150-190°C.

11. (Currently Amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 10, wherein the leaching step (12) and the conversion step (19) are controlled by measuring and adjusting the surface state and reactions of the essential dissolving and precipitating phases, on the basis of mineral-specific potentials, impedance values and solution content values measured by mineral based electrodes.

12. (New) A method according to claim 1, wherein the slag (11) obtained from smelting is silicate bearing.

13. (New) A method according to claim 1, wherein the slag (11) obtained from smelting is ferrite bearing.

14. (New) A method according to claim 3, wherein the leaching (12) of the slag is carried out as atmospheric leaching.

15. (New) A method according to claim 14, wherein the leaching (12) of the slag is carried out at the temperature of 50-105°C.

16. (New) A method according to claim 3, wherein the leaching (12) of the slag is carried out in an autoclave.

17. (New) A method according to claim 3, wherein the conversion (19) of the copper, leached from the slag, into sulfide is carried out at the temperature of 90-200°C.

18. (New) A method according to claim 17, wherein the conversion (19) of the copper, leached from the slag, into sulfide is carried out at the temperature of 150-190°C.

19. (New) A method according to claim 3, wherein the leaching step (12) and the conversion step (19) are controlled by measuring and adjusting the surface state and reactions of the essential dissolving and precipitating phases, on the basis of mineral-specific potentials, impedance values and solution content values measured by mineral based electrodes.